

DETAILED ACTION

1. This office action is in response to amendment filed on 1/18/2010.
2. Per Applicant's request, claims 40, 64, and 67 have been amended; claims 69-75 have been canceled.
3. The objection to the specification has been withdrawn in view of the Applicant's amendment to the claims and specification.
4. The 35 U.S.C. 101 rejections of claims 67-68 and 70 have been withdrawn in view of the Applicant's amendment/cancellation of the claims.
5. Claims 40-68 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 40-57, 59-62, 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (herein Keller, USPGN 2004/0049509), Ahlstrom et al. (herein Ahlstrom, USPTN 6,418,468), in view of Grier et al. (herein Grier, USPGN 2002/0100017), Chang et al. (herein Chang, USPGN, 2005/0015761) and further in view of Horton et al. (hereinafter, Horton, USPGN 2008/0281969).

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As per claim 40,

Keller discloses

- A memory component;
- a configuration store that stores persisted information associated with setting for each of a plurality of instances of an application onto the memory component according to a uniform semantics scheme, the storage of persisted information for each of the plurality of instances isolated from persisted information for any of the remaining plurality of instances; , the persisted information comprising of configuration information and dependency information ([0055], "...exposes the management characteristics and capabilities of a (managed) resource through well-defined (sometimes even standardized)..." ; Fig. 2A, [0097], [0098] where discloses a system that containing configuration store 225 comprising dependency information. [0117], where a configuration files of a managed resource is disclose (last line in this paragraph), [0118], where an example Window Registry is disclose as a location of configuration files; [0134], "...This information is described in flat XML files" where XML is considered having uniform semantics.; [0129], "...distinguish he various application instances...", where it discloses distinguishable application instances and therefore, isolation of the plurality of application instances; [0097], " Examples of managed resources include...hardware components...and software components...", where managed resources can be software.); and,

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- a configuration service component that manages access to the configuration store, (Fig. 2A, Repository Agent 230, [0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230.).

Keller does not specifically disclose

- The configuration store is a standardized configuration store; and converts information associated with an application into the persisted information associated with each of the plurality of instances of the application.

However, Ahlstrom discloses

- The configuration store is a unified configuration store (c8: 56-58, "...standard representation of configuration information is stored..."); and
- converts information associated with an application into unified persisted information (C12:9-15, claim 4, "...identifying a configuration...converting the configuration information into a standard format..." One interpretation of a unified configuration data is configuration data with standard format.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ahlstrom into the teachings of Keller to

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include the limitation disclosed by Ahlstrom. The modification would be obvious to one of ordinary skill in the art to want to deal with idiosyncratic systems with standardized representations as suggested by Ahlstrom (c6: 57-58).

Keller/ Ahlstrom does not specifically disclose

- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the application, a processor architecture for the instance of the application and a public key token of the instance of the application.

However, Grier discloses

- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the application, a processor architecture for the instance of the application and a public key token of the instance of the application ([0043], TABLE 1, for name, version, processor architecture, public key token and language).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Grier into the teachings of Keller/ Ahlstrom to include the limitation disclosed by Grier. The modification would be obvious to one of

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ordinary skill in the art to want to unambiguously identify information as suggested by Grier ([0041])

Keller/ Ahlstrom/Grier does not specifically disclose

- each unique namespace is derived from a deployment ID.

However, Chang discloses

- each unique namespace is derived from a deployment ID([0114], "...the namespace...of... application...such as...deployment ID...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Chang into the teachings of Keller/ Ahlstrom/Grier to include the limitation disclosed by Chang. The modification would be obvious to one of ordinary skill in the art to want to provide differentiation of various versions in terms of certain elements or features of applications in namespace by adding deployment ID as suggested by Chang ([0062])

Keller/ Ahlstrom/Grier/Chang does not specifically disclose

- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application.

However, Horton discloses

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- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application ([0015], "...A plurality of version of software application programs...access to specific ones of the plurality of versions....A directory or registry must be set up... the operating system is...Windows... the table is in the form of a "registry"...).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Horton into the teachings of Keller/Ahlstrom/Grier/Chang to include the limitation disclosed by Horton. The modification would be obvious to one of ordinary skill in the art to want to support access to a specific version a plurality of versions of an application as suggested by Horton([0015]).

As per claim 41, the rejection of claim 40 is incorporated;

Keller discloses

the information associated with an application is at least one of configuration information or dependency information([0097], [0098] where discloses a system that containing configuration store 225 comprising dependency information.).

As per claim 42, the rejection of claim 40 is incorporated;

Keller discloses

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- wherein the configuration service component receives a manifest associated with the application, the manifest comprising at least one of configuration and dependency information associated with the application(Fig. 2A, Repository Agent 230, [0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230."; [0117], where a configuration files of a managed resource is disclose (last line in this paragraph), [0118], where an example Window Registry is disclose as a location of configuration files);

Ahlstrom discloses

and the configuration service component converts and stores at least some of the manifest information in the unified configuration store(c8: 56-58, "...standard representation of configuration information is stored...";C12:9-15, claim 4, "...identifying a configuration...converting the configuration information into a standard format..." One interpretation of a unified configuration data is configuration data with standard format.).

As per claim 43, the rejection of claim 42 is incorporated;

Keller discloses

- wherein the manifest is based, at least in part, upon a schema ([0153], "...XML Schema...").

As per claim 44, the rejection of claim 43 is incorporated;

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Keller discloses

- wherein the schema is XML-based ([0153], "...XML Schema...").

As per claim 45, the rejection of claim 42 is incorporated;

Keller discloses

- wherein the manifest employing at least one of strong typing, validation, and assertions ([0145], "...applying filter rules..." where applying rules is validation).

As per claim 46, the rejection of claim 42 is incorporated;

Keller discloses

wherein the configuration service component compiles at least one of manifest information into a namespace, the configuration service component providing access to the namespace ([0128], "...navigate...the model.... a globally unique name for identifying the component..." where navigation provides access to the information.).

As per claim 47, the rejection of claim 40 is incorporated;

Keller/ Ahlstrom disclose

further comprising a configuration management engine that identifies configuration information within the persisted information and facilitates management of at least a portion of the configuration information (Keller discloses facilitates management and identification of configuration information,

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[0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230, for at least the reason that queries requires identification of information; Ahlstrom discloses unified persisted information, c8: 56-58, "...standard representation of configuration information is stored...";).

As per claim 48, the rejection of claim 40 is incorporated;

Keller discloses

- the configuration service component facilitating access to a legacy store([0118], "...the Microsoft Windows Registry..." where registry can be accessed.).

As per claim 49, the rejection of claim 48 is incorporated;

Keller discloses

the legacy store comprising a registry([0118], "...the Microsoft Windows Registry...").

As per claim 50, the rejection of claim 40 is incorporated;

Keller discloses

the configuration service component facilitating at least one management service(Fig. 2A, Repository Agent 230, [0098], "The resource dependency

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repository 225 can be queries, updated and modified through a repository agent 230.).

As per claim 51, the rejection of claim 50 is incorporated;

Keller discloses

the management service comprising at least one of a group policy component and a roaming component(FIG 2A, 250 Policy).

As per claim 52, the rejection of claim 50 is incorporated;

Keller discloses

the management service facilitating at least one of install, usage, servicing, uninstall, roaming, migration, setup, provisioning, policy, backup and/or restore ([0009], "...installation...").

As per claim 53, the rejection of claim 40 is incorporated;

Keller discloses

further comprising an assertion engine that facilitates administration of a validation rule by the configuration service component(Fig. 2A, 245 Dependency Service, where dependency is validated.).

As per claim 54, the rejection of claim 40 is incorporated;

Keller discloses

further comprising a notification handler that provides information associated with a configuration change of the application to at least one of the application and another

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application([0082], "... provides a publish/subscribe interface for notifying for changes...").

As per claim 55, the rejection of claim 40 is incorporated;

Keller discloses

- further comprising a legacy handler that facilitates synchronization of the system with a legacy store([0118], "...maintain references...the Microsoft Windows Registry...").

As per claim 56, the rejection of claim 55 is incorporated;

Keller discloses

- the legacy store comprising a registry([0118], "...maintain references...the Microsoft Windows Registry...").

As per claim 57, the rejection of claim 40 is incorporated;

Keller discloses

- wherein the configuration service component facilitates transacted commits for saving related changes together in the configuration store (Fig. 2A, Repository Agent 230, [0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230.).

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As per claim 59, the rejection of claim 40 is incorporated;

Keller discloses

- wherein the configuration service component facilitates change logs and
history([0082], "...a notion of history in order to detect and
determine changes...").

As per claim 60, the rejection of claim 40 is incorporated;

Keller/ Ahlstrom disclose

wherein the configuration store comprises a joint engine technology database that stores
a settings namespace (Keller -FIG 2A for database, where database
supports joint operation; Ahlstrom- c8: 56-58, "...standard
representation of configuration information is stored...";).

As per claim 61, the rejection of claim 60 is incorporated;

Keller discloses

wherein a namespace comprises metadata on settings comprising types, attributes, and
user context, the namespace further comprising instance values of the
settings([0153], "...XML Schema..."; [0114], "...user profiles and
preferences..."; [0149], "... the descriptions of services and
components or the retrieval of values of specific attributes...").

As per claim 62, the rejection of claim 61 is incorporated;

Keller discloses

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wherein at least one of the metadata on the settings and instance values of the settings is stored for each user context([0114], "...user profiles and preferences...").

As per claim 67,

Keller discloses

- receiving a manifest associated with an application, the manifest comprising at least configuration information and dependency information associated with a plurality of instances of the application; (Fig. 2A, Repository Agent 230, [0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230."; [0117], where a configuration files of a managed resource is disclose (last line in this paragraph), [0118], where an example Window Registry is disclose as a location of configuration files; [0129], "...distinguish he various application instances...", where it discloses distinguishable application instances and therefore, isolation of the plurality of application instances;);
- registering the manifest; processing the manifest to generate persisted information associated with settings for each of the plurality of instances of the application from at least one of the configuration information or the dependency information for each of the plurality of instances; and storing at least some of the

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persisted information in a configuration store according to a uniform semantics scheme, the persisted information for each of the plurality of instances isolated from persisted information for all of the remaining plurality of instances ([0082], "...registered for changes within the dependency model..."; [0129], "...distinguish the various application instances...", where it discloses distinguishable application instances and therefore, isolation of the plurality of application instances; [0134], "...This information is described in flat XML files" where XML is considered having uniform semantics.).

Keller does not specifically disclose

- The persisted information is standardized and the configuration store is unified.

However, Ahlstrom

- The persisted information is unified and the configuration store is unified (c8: 56-58, "...standard representation of configuration information is stored...");

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ahlstrom into the teachings of Keller to include the limitation disclosed by Ahlstrom. The modification would be obvious to one of ordinary skill in the art to want to deal with idiosyncratic systems with standardized representations as suggested by Ahlstrom (c6: 57-58).

Keller/ Ahlstrom does not specifically disclose

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- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the application, a processor architecture for the instance of the application and a public key token of the instance of the application.

However, Grier discloses

- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the application, a processor architecture for the instance of the application and a public key token of the instance of the application ([0043], TABLE 1, for name, version, processor architecture, public key token and language).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Grier into the teachings of Keller/ Ahlstrom to include the limitation disclosed by Grier. The modification would be obvious to one of ordinary skill in the art to want to unambiguously identify information as suggested by Grier ([0041])

Keller/ Ahlstrom/Grier does not specifically disclose

- each unique namespace is derived from a deployment ID.

However, Chang discloses

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- each unique namespace is derived from a deployment ID([0114], "...the namespace...of... application...such as...deployment ID...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Chang into the teachings of Keller/ Ahlstrom/Grier to include the limitation disclosed by Chang. The modification would be obvious to one of ordinary skill in the art to want to provide differentiation of various versions in terms of certain elements or features of applications in namespace by adding deployment ID as suggested by Chang ([0062])

Keller/ Ahlstrom/Grier/Chang does not specifically disclose

- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application.

However, Horton discloses

- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application ([0015], "...A plurality of version of software application programs...access to specific ones of the plurality of versions....A directory or registry must be set up... the operating system is...Windows... the table is in the form of a "registry"...).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Horton into the teachings of Keller/Ahlstrom/Grier/Chang to include the limitation disclosed by Horton. The modification would be obvious to one of ordinary skill in the art to want to support access to a specific version a plurality of versions of an application as suggested by Horton([0015]).

As per claim 68, the rejection of claim 67 is incorporated;

Keller/Ahlstrom disclose

further comprising compiling at least a portion of the unified persisted information into a namespace(Keller: [0152] for URI, Ahlstrom, c8:56-58 for standard format.) .

7. Claims 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (herein Keller, USPGN 2004/0049509), Ahlstrom et al.(herein Ahlstrom, USPTN 6,418,468), Pham et al. (herein Pham, USPTN 5,524,253), Grier et al. (herein Grier, USPGN 2002/0100017), in view of Chang et al. (herein Chang, USPGN, 2005/0015761) and further in view of Horton et al. (hereinafter, Horton, USPGN 2008/0281969).

As per claim 64,

Keller discloses

A configuration management system comprising:

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- a local cache that at least temporarily stores changes to persisted information associated with settings for an application; and a configuration management engine that facilitates communication of the changed persisted information to a configuration service component, the configuration management engine facilitating an isolation of the changed persisted information at least until a notification is received that the changed persisted information has been committed. (store (Fig. 2B, shows an Administrator GUI 285 containing memory which is cache stores requests sent to the system; see FIG. 2A; [0129], "...distinguish the various application instances...", where it discloses distinguishable application instances and therefore, isolation of the plurality of application instances; [0082], "... provides a publish/subscribe interface for notifying for changes...", where a change is considered committing information; Fig. 2A, Repository Agent 230, [0098], "The resource dependency repository 225 can be queries, updated and modified through a repository agent 230.)).

Keller does not specifically disclose

- The persisted information is unified.

However, Ahlstrom discloses

- The persisted information is unified (c8: 56-58, "...standard representation of configuration information is stored..." One interpretation of unified persisted information is standard representation of the information.);

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ahlstrom into the teachings of Keller to include the limitation disclosed by Ahlstrom. The modification would be obvious to one of ordinary skill in the art to want to deal with idiosyncratic systems with standardized representations as suggested by Ahlstrom (c6: 57-58).

Keller/ Ahlstrom do not specifically disclose

- The changed unified persisted information stored in the local cache.

However, Pham discloses

- The changed unified persisted information stored in the local cache (c7:14-20, "...source machine's format is converted to destination machine's formation...using locally stored routines...on the source machine...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Pham into the teachings of Keller/ Ahlstrom to include the limitation disclosed by Pham. The modification would be obvious to one of ordinary skill in the art to want to allow applications having different physical data characteristic to communicate as suggested by Pham (see abstract).

Keller/ Ahlstrom/ Pham does not specifically disclose

- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the

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application, a processor architecture for the instance of the application and a public key token of the instance of the application.

However, Grier discloses

- the persisted information being isolated according to a unique namespace for each instance; wherein each unique namespace for each instance of the application is derived from each of the following: a name of the application, a version of the instance of the application, a language of the instance of the application, a processor architecture for the instance of the application and a public key token of the instance of the application ([0043], TABLE 1, for name, version, processor architecture, public key token and language).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Grier into the teachings of Keller/ Ahlstrom/ Pham to include the limitation disclosed by Grier. The modification would be obvious to one of ordinary skill in the art to want to unambiguously identify information as suggested by Grier ([0041])

Keller/ Ahlstrom/ Pham /Grier does not specifically disclose

- each unique namespace is derived from a deployment ID.

However, Chang discloses

- each unique namespace is derived from a deployment ID([0114], "...the namespace...of... application...such as...deployment ID...").

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Chang into the teachings of Keller/ Ahlstrom/ Pham /Grier to include the limitation disclosed by Chang. The modification would be obvious to one of ordinary skill in the art to want to provide differentiation of various versions in terms of certain elements or features of applications in namespace by adding deployment ID as suggested by Chang ([0062]).

Keller/ Ahlstrom/Pham/Grier/Chang does not specifically disclose

- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application.

However, Horton discloses

- The persisted information is an operating system registry of a computer, the operating system registry stored on the memory component, a plurality of versions of a single application being installed on the computer and each instance is a version of the application ([0015], "...A plurality of version of software application programs...access to specific ones of the plurality of versions....A directory or registry must be set up... the operating system is...Windows... the table is in the form of a "registry"...).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Horton into the teachings of Keller/

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Ahlstrom/Pham/Grier/Chang to include the limitation disclosed by Horton. The modification would be obvious to one of ordinary skill in the art to want to support access to a specific version a plurality of versions of an application as suggested by Horton([0015]).

As per claim 65, the rejection of claim 64 is incorporated;

Ahlstrom

the unified persisted information comprising at least a standardized representation of configuration information (c8: 56-58, "...standard representation of configuration information is stored...".)

As per claim 66, the rejection of claim 65 is incorporated;

Ahlstrom

the configuration information comprises at least information other than dependency information (c8: 56-58, "...standard representation of configuration information is stored..."; c6:55-60).

8. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (herein Keller, USPGN 2004/0049509) in view of Ahlstrom et al. (herein Ahlstrom, USPTN 6,418,468), Grier et al. (herein Grier, USPGN 2002/0100017), Chang et al. (herein Chang,

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USPGN, 2005/0015761), Horton et al. (hereinafter, Horton, USPGN 2008/0281969), and further in view of Eager et al. (herein Eager, US Patent. No. 5,960,200).

As per claim 58, the rejection of claim 40 is incorporated;

Keller/ Ahlstrom/Grier/Chang/Horton do not specifically disclose

wherein the configuration service component employs at least one of ACL-based security and role-based security are provided at per-setting granularity.

However, Eager discloses

wherein the configuration service component employs at least one of ACL-based security and role-based security are provided at per-setting granularity(c21:38, "...ACL...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Eager into the teachings of Keller/ Ahlstrom/ Grier/Chang/Horton to include the above limitation. The modification would be obvious to one of ordinary skill in the art to want to controlling access to application resources of Windows applications as suggested by Eager ([0089]) .

9. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (herein Keller, USPGN 2004/0049509) in view of Ahlstrom et al. (herein Ahlstrom, USPTN 6,418,468), Grier et al. (herein Grier, USPGN 2002/0100017), Chang et al. (herein Chang, USPGN, 2005/0015761), Horton et al. (hereinafter, Horton, USPGN

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2008/0281969) and further in view of Bondarenko et al. (herein Bondarenko, US PGPub. No. 2004/0083479).

As per claim 63, the rejection of claim 40 is incorporated;

Keller/ Ahlstrom/ Grier/Chang/Horton do not specifically disclose

at least one of URI and Xpath can access a setting within a namespace as well as in between namespaces.

However, Bondarenko et al. disclose

- at least one of URI and Xpath can access a setting within a namespace as well as in between namespaces[0069], for Xpath; and [0101], for URI).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Bondarenko into the teachings of Keller/ Ahlstrom/ Grier/Chang/Horton to include the above limitation. The modification would be obvious to one of ordinary skill in the art to want to enable third party integration of the application as suggested by Bondarenko ([0007], "...third-party integration...").

Response to Arguments

10. Applicant's arguments with respect to argued independent claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00 - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Philip Wang/

Primary Examiner, Art Unit 2191